Claims:

1-32 (Canceled).

33. (New) A method of substantially recreating a spatial acoustic perception of a first listener of a first loudspeaker-listener layout for a plurality of listeners of a second loudspeaker-listener layout whereby the perception of the first listener of the first loudspeaker-listener layout is caused by an excitation signal being applied through a first transfer function to a loudspeaker of the first loudspeaker-listener layout, the method comprising the steps of:

determining a second matrix of transfer functions from the loudspeaker of the first loudspeaker-listener layout to the ears of the first listener of the first loudspeaker-listener layout;

determining a third matrix of transfer functions from a loudspeaker or loudspeakers of the second loudspeaker-listener layout to the ears of the plurality of listeners of the second loudspeaker-listener layout;

determining a fourth matrix of transfer functions from the first, second, and third matrices which substantially recreates the spatial acoustic perception of the first listener of the first loudspeaker-listener layout for the plurality of

listeners of the second loudspeaker-listener layout; and

applying the excitation signal to an electronic implementation of the fourth matrix and in turn to the loudspeaker or loudspeakers of the second loudspeaker-listener layout, for the benefit of the plurality of listeners in the second loudspeaker-listener layout, wherein at least some of the elemental transfer functions of the second, third, and fourth matrices of transfer functions are derived from model head-related transfer functions, and wherein the plurality of listeners of the second loudspeaker-listener layout all listen simultaneously.

34. (New) A method of substantially recreating a spatial acoustic perception of a first listener of a first loudspeaker-listener layout for a plurality of listeners of a second loudspeaker-listener layout whereby the perception of the first listener of the first loudspeaker-listener layout is caused by one or more excitation signals being applied through a first matrix of transfer functions to a plurality of loudspeakers of the first loudspeaker-listener layout, the method comprising the steps of:

determining a second matrix of transfer functions from the plurality of loudspeakers of the first loudspeaker-listener layout to the ears of the first listener of the first

loudspeaker-listener layout;

determining a third matrix of transfer functions from a plurality of loudspeakers of the second loudspeaker-listener layout to the ears of the plurality of listeners of the second loudspeaker-listener layout;

determining a fourth matrix of transfer functions from the first, second, and third matrices which substantially recreates the spatial acoustic perception of the first listener of the first loudspeaker-listener layout for the plurality of listeners of the second loudspeaker-listener layout; and

applying the one or more excitation signals to an electronic implementation of the fourth matrix and in turn to the plurality of loudspeakers of the second loudspeaker-listener layout, for the benefit of the plurality of listeners in the second loudspeaker-listener layout, wherein at least some of the elemental transfer functions of the second, third, and fourth matrices of transfer functions are derived from model head-related transfer functions, wherein the number and relative positions of the loudspeakers of the first loudspeaker-listener layout and the number and relative positions of the loudspeakers *second* loudspeaker-listener layout are the same, and wherein the plurality of listeners of the second loudspeaker-listener layout all listen simultaneously.

35. (New) A method of substantially recreating a spatial acoustic perception of a first listener of a first loudspeaker-listener layout for a plurality of listeners of a second loudspeaker-listener layout whereby the perception of the first listener of the first loudspeaker-listener layout is caused by one or more excitation signals being applied through a first matrix of transfer functions to one or more loudspeakers of the first loudspeaker-listener layout, the method comprising the steps of:

determining a second matrix of transfer functions from the one or more loudspeakers of the first loudspeaker-listener layout to the ears of the first listener of the first loudspeaker-listener layout;

determining a third matrix of transfer functions from a plurality of loudspeakers of the second loudspeaker-listener layout to the ears of the plurality of listeners of the second loudspeaker-listener layout;

determining a fourth matrix of transfer functions from the first, second, and third matrices which substantially recreates the spatial acoustic perception of the first listener of the first loudspeaker-listener layout for the plurality of listeners of the second loudspeaker-listener layout; and

applying the one or more excitation signals to an electronic implementation of the fourth matrix and in turn to the

plurality of loudspeakers of the second loudspeaker-listener layout, for the benefit of the plurality of listeners in the second loudspeaker-listener layout, wherein at least some of the elemental transfer functions of the second, third, and fourth matrices of transfer functions are derived from model head-related transfer functions, and wherein the plurality of listeners of the second loudspeaker-listener layout all listen simultaneously.

36. (New) A method of substantially recreating a spatial acoustic perception of a first listener of a first loudspeaker-listener layout for a second listener of a second loudspeaker-listener layout whereby the perception of the first listener of the first loudspeaker-listener layout is caused by one or more excitation signals being applied through a first matrix of transfer functions to one or more loudspeakers of the first loudspeaker-listener layout, the method comprising the steps of:

determining a second matrix of transfer functions from the one or more loudspeakers of the first loudspeaker-listener layout to the ears of the first listener of the first loudspeaker-listener layout;

determining a third matrix of transfer functions from more than four loudspeakers of the second loudspeaker-listener layout to the ears of the second listener of the second

loudspeaker-listener layout;

determining a fourth matrix of transfer functions from the first, second, and third matrices which substantially recreates the spatial acoustic perception of the first listener of the first loudspeaker-listener layout for the second listener of the second loudspeaker-listener layout; and

applying the one or more excitation signals to an electronic implementation of the fourth matrix and in turn to the more than four loudspeakers of the second loudspeaker-listener layout, for the benefit of the second listener of the second loudspeaker-listener layout, wherein at least some of the elemental transfer functions of the second, third, and fourth matrices of transfer functions are derived from model head-related transfer functions and the first and second loudspeaker-listener layout are different.

37. (New) A method of substantially recreating one or more spatial acoustic perceptions of a plurality of listeners of a first loudspeaker-listener layout for a plurality of listeners of a second loudspeaker-listener layout whereby the one or more perceptions of the plurality of listeners of the first loudspeaker-listener layout is caused by one or more excitation signals being applied through a first matrix of transfer functions to one or more loudspeakers of the first loudspeaker-

listener layout, the method comprising the steps of:

determining a second matrix of transfer functions from the one or more loudspeakers of the first loudspeaker-listener layout to the ears of the plurality of listeners of the first loudspeaker-listener layout;

determining a third matrix of transfer functions from a plurality of loudspeakers of the second loudspeaker-listener layout to the ears of the plurality of listeners of the second loudspeaker-listener layout;

determining a fourth matrix of transfer functions from the first, second, and third matrices which substantially recreates the one or more spatial acoustic perceptions of the plurality of listeners of the first loudspeaker-listener layout for the plurality of listeners of the second loudspeaker-listener layout; and

applying the one or more excitation signals to an electronic implementation of the fourth matrix and in turn to the plurality of loudspeakers of the second loudspeaker-listener layout, for the benefit of the plurality of listeners of the second loudspeaker-listener layout, wherein at least some of the elemental transfer functions of the second, third, and fourth matrices of transfer functions are derived from model head-related transfer functions, and wherein the plurality of listeners of the second loudspeaker-listener layout all listen

simultaneously.

38. (New) A method of substantially recreating a plurality of spatial acoustic perceptions of a plurality of listeners of a first loudspeaker-listener layout for one or more listeners of a second loudspeaker-listener layout whereby the plurality of perceptions of the plurality of listeners of the first loudspeaker-listener layout are caused by one or more excitation signals being applied through a first matrix of transfer functions to one or more loudspeakers of the first loudspeaker-listener layout, the method comprising the steps of:

determining a second matrix of transfer functions from the one or more loudspeakers of the first loudspeaker-listener layout to the ears of the one or more listeners of the first loudspeaker-listener layout;

determining a third matrix of transfer functions from a plurality of loudspeakers of the second loudspeaker-listener layout to the ears of the one or more listeners of the second loudspeaker-listener layout;

determining a fourth matrix of transfer functions from the first, second, and third matrices which substantially recreates the plurality of spatial acoustic perceptions of the plurality of listeners of the first loudspeaker-listener layout for the one or more listeners of the second loudspeaker-listener

layout; and

applying the one or more excitation signals to an electronic implementation of the fourth matrix and in turn to the plurality of loudspeakers of the second loudspeaker-listener layout, for the benefit of the one or more listeners of the second loudspeaker-listener layout, wherein at least some of the elemental transfer functions of the second, third, and fourth matrices of transfer functions are derived from model head-related transfer functions, and wherein the one or more listeners of the second loudspeaker-listener layout all listen simultaneously.

39. (New) A method of substantially recreating an acoustic perception of a first listener of a first loudspeaker-listener layout for a plurality of listeners of a second loudspeaker-listener layout whereby the perception of the first listener of the first loudspeaker-listener layout is caused by one or more excitation signals being applied through a first matrix of transfer functions to one or more loudspeakers of the first loudspeaker-listener layout, the method comprising the steps of:

determining a second matrix of transfer functions from the one or more loudspeakers of the first loudspeaker-listener layout to the ears of the first listener of the first loudspeaker-listener layout;

determining a third matrix of transfer functions from three or more loudspeakers of the second loudspeaker-listener layout to the ears of the plurality of listeners of the second loudspeaker-listener layout;

determining a fourth matrix of transfer functions from the first, second, and third matrices which substantially recreates the spatial acoustic perception of the first listener of the first loudspeaker-listener layout for the plurality of listeners of the second loudspeaker-listener layout; and

applying the one or more excitation signals to an electronic implementation of the fourth matrix and in turn to the three or more loudspeakers of the second loudspeaker-listener layout, for the benefit of the plurality of listeners of the second loudspeaker-listener layout, wherein at least some of the elemental transfer functions of the second, third, and fourth matrices of transfer functions are derived from model head-related transfer functions, and wherein the plurality of listeners of the second loudspeaker-listener layout al listen simultaneously.

40. (New) A method of substantially recreating an acoustic perception of a first listener of a first loudspeaker-listener layout for a second listener of a second loudspeaker-listener layout whereby the perception of the first listener of the first

loudspeaker-listener layout is caused by one or more excitation signals being applied through a first matrix of transfer functions to one or more loudspeakers of the first loudspeaker-listener layout, the method comprising the steps of:

determining a second matrix of transfer functions from the one or more loudspeakers of the first loudspeaker-listener layout to the ears of the first listener of the first loudspeaker-listener layout;

determining a third matrix of transfer functions from exactly three loudspeakers of the second loudspeaker-listener layout to the ears of the second listener of the second loudspeaker-listener layout;

determining a fourth matrix of transfer functions from the first, second, and third matrices which substantially recreates the spatial acoustic perceptions of the first listener of the first loudspeaker-listener layout for the second listener of the second loudspeaker-listener layout; and

applying the one or more excitation signals to an electronic implementation of the fourth matrix and in turn to the exactly three loudspeakers of the second loudspeaker-listener layout, for the benefit of the second listener of the second loudspeaker-listener layout, wherein at least some of the elemental transfer functions of the second, third, and fourth matrices of transfer functions are derived from model head-

related transfer functions and wherein the exactly three loudspeakers of the second loudspeaker-listener layout are equally spaced apart along a straight line and wherein the second listener of the second loudspeaker-listener layout is not situated on a perpendicular bisecting line of said straight line.